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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,129	09/25/2001	Takeshi Ishizaki	36992.00083 (HAL 187CIP)	2009
30256	7590	01/14/2005	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P 600 HANSEN WAY PALO ALTO, CA 94304-1043			SHIN, KYUNG H	
			ART UNIT	PAPER NUMBER
			2143	
DATE MAILED: 01/14/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,129

Applicant(s)

ISHIZAKI ET AL.

Examiner

Kyung H Shin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/20/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responding to application papers filed 9/25/2001
2. Claims 1 - 20 are pending. Independent claims are 1, 16, 17, 18, 19, 20.

Claim Rejection - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1 - 5, 7 - 11, 14, 15, 20 are rejected under 35 U.S.C. 102(e) as being unpatentable over Gonda et al. (US Patent No. 6,662,221).**

Regarding Claims 1, 20, Gonda discloses a system, comprising:

- a) a connection to a virtual private network; (see col. 4, lines 48-53: VPN connectivity)
- b) a router, connected to said virtual private network, wherein said router maintains at least one virtual router for a client; (see Gonda col. 4, lines 25-27: VPN communications router)

- c) at least one server, said server having at least one logical partition; (see Gonda col. 2, line 64 - col. 3, line 3: VPN server system)
- d) a virtual LAN switch, connected to said router, said virtual LAN switch providing selectable forwarding for information from said router to said at least one logical partition of said at least one server; (see Gonda col. 14, lines 57-58: server system switch utilized in VPN (VLAN) communications and management system)
- e) at least one volume; (see Gonda col. 6, lines 13-14: volume attached to server system)
- f) an FC switch, wherein said FC switch (see Gonda col. 14, lines 57-58: network switch utilizing by VPN communications and management system) provides selectable interconnection between said at least one logical partition of said at least one server and said at least one volume, so that information received from a plurality of sources via said virtual private network is directed to a particular virtual router for each of said sources by said router, and wherein said information is then directed to a particular one of said at least one logical partition of said server for each of said sources by said virtual LAN switch, and wherein said information is then directed to a particular volume for each of said sources by said FC switch. (see Gonda col. 11, lines 41-47; col. 2, line 64 - col. 3, line 3: customer specific VPN communications controlled by VPN server, customer information (data) processed by specific server designated by customer identification)

Regarding Claim 2, Gonda discloses the system of claim 1, further comprising a virtual private network management system that controls operation of said router. (see Gonda col. 4, lines 25-27; col. 3, lines 49-52: router utilized for VPN server and network management communications)

Regarding Claim 3, Gonda discloses the system of claim 2, said virtual private network management system further comprising: a network interface module that receives commands from an integrated service management system (see Gonda col. 3, lines 60-64: integrated services management), a service order processing module that analyzes and executes the commands (see Gonda col. 12, lines 2-7; col. 12, lines 12-18: service order and command processing system), updates a table of virtual private network information, and sends new configuration information to said router through a control module (see Gonda col. 11, lines 41-47: update, maintain VPN information database; col. 7, lines 51-56: configuration changes are processed and implemented).

Regarding Claim 4, Gonda discloses the system of claim 2, said virtual service management system further comprising a virtual private network table, said virtual private network table having a VPN ID that identifies a specific VPN, an Address 1 and an Address 2 that hold IP addresses of two end points of said specific VPN (see Gonda col. 14, lines 17-23: VPN tunnel endpoints are maintained), a Protocol that specifies a VPN protocol that is used on said specific VPN (see Gonda col. 11, lines 41-47: specific VPN tunnel type, an Internet that indicates whether access to public Internet is

permitted (see Gonda col. 4, lines 44-47: Internet access for VPN), and a VLAN ID that is assigned to packets received over said specific VPN (see Gonda col. 14, lines 14-15: VPN (VLAN) identification information maintained).

Regarding Claim 5, Gonda discloses the system of claim 1, further comprising a server management system that controls operation of said virtual LAN switch. (see Gonda col. 2, line 64 - col. 3, line 3: VPN server network management system)

Regarding Claim 7, Gonda discloses the system of claim 1, further comprising an integrated service management system that controls operations. (see Gonda col. 3, lines 49-52: integrated services VPN network management system)

Regarding Claim 8, Gonda discloses the system of claim 7, said integrated service management system further comprising: a network interface module that receives requests to change configuration, a service order processing module that analyzes and executes requests to change configuration received by said network interface module (see Gonda col. 12, lines 2-7: service order configuration requests processed), updates related table cache in a service management database, and sends new configuration information using said network interface module. (see Gonda col. 7, lines 51-56: configuration changes are processed and implemented)

Regarding Claim 9, 10, Gonda discloses the system of claim 8, further comprising an

operator console application, customer portal application that sends a request command to change service configuration to said integrated management system. (see Gonda col. 8, lines 7-14: configuration change requests are processed and implemented)

Regarding Claim 11, Gonda discloses the system of claim 8, said integrated service management system further comprising a service configuration table, said service configuration table having destination information. (see Gonda col. 8, lines 31-47: VPN connection destination information)

Regarding Claim 14, Gonda discloses the system of claim 8, said integrated service management system further comprising a service mapping table, said service mapping table having a customer identifier, a virtual private network identifier, a server identifier, and a volume identifier. (see Gonda col. 14, lines 3-8; col. 14, lines 14-15; col. 14, lines 51-53: customer identification, VPN Identification, server identification, volume identification)

Regarding Claim 15, Gonda discloses the system of claim 8, said integrated service management system further comprising a service status table, said service status table having a customer identifier, a virtual private network status, a server status, and a volume status (see Gonda col. 14, line 16: VPN, server, volume status information; col.

14, lines 3-8; col. 14, lines 14-15: customer identification, VPN identification)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 6, 13, 16 - 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonda et al. (US Patent No. 6,662,221) in view of Blumenau et al. (US Patent No. 6,665,714).**

Regarding Claim 6, Gonda discloses a management system for controlling a switch (see Gonda col. 14, lines 57-58; col. 3, lines 60-64: VPN switch utilized by VPN management system). Gonda does not disclose a storage management system. However, Blumenau discloses a system of claim 1, further comprising a storage management system. (see Blumenau col. 2, lines 4-12: data storage management system)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gonda to implement a storage management system as taught by Blumenau. One of ordinary skill in the art would be motivated to employ

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Blumenau in order to provide centralized data management and strengthen security by removal of trust requirement in accessing storage in network communications. (see Blumenau col. 5, lines 33-38: “ ... *data management to be centralized ... removes the need to trust the hosts seeking access to the storage system ...* ”)

Regarding Claim 13, Gonda discloses an integrated services management system.

Gonda does not disclose a storage table having volume, port, HBA, capacity identification and access information. However, Blumenau discloses the system of claim 8, further comprising a storage table, said storage table having a volume identifier (see Blumenau col. 29, lines 46-53: volume identification), a port identifier, (see Blumenau col. 23, lines 2-7: port identification) an allowed host bus adapter(s) (HBAs) identifier (see Blumenau col. 8, lines 35-41: HBA identifiers), a capacity identifier (see Blumenau col. 29, lines 46-53: capacity parameter), and an access information (see Blumenau col. 2, lines 45-52: access information for storage management system).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gonda to implement a storage management system as taught by Blumenau. One of ordinary skill in the art would be motivated to employ Blumenau in order to provide centralized data management and strengthen security by removal of trust requirement in accessing storage in network communications. (see Blumenau col. 5, lines 33-38)

Regarding Claim 16, Gonda discloses a method for managing storage, comprising:

- a) receiving a request to change a configuration of an integrated storage and networking system (see Gonda col. 8, lines 7-14: request for service modification);
- b) analyzing said request to determine a new configuration; sending new configuration information to at least one of a plurality of subsystem managers. (see Gonda col. 7, lines 51-56: configuration changes processed and implemented)
- d) sending new configuration information to at least one of a plurality of subsystem managers. (see Gonda col. 7, lines 51-56: process modifications to configuration)
- c) Gonda discloses updating configuration tables (see Gonda col. 7, lines 51-56). Gonda does not disclose a storage management system that comprises a mapping between a logical partition and at least one of a plurality of HBAs. However, Blumenau discloses a mapping between a logical partition and at least one of a plurality of HBAs attached thereto; (see Blumenau col. 2, lines 4-12; col. 8, lines 35-41: storage device mapping information and HBA information)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gonda to implement a storage management system as taught by Blumenau. One of ordinary skill in the art would be motivated to employ

Blumenau in order to provide centralized data management and strengthen security by removal of trust requirement in accessing storage in network communications. (see Blumenau col. 5, lines 33-38)

Regarding Claim 17, 18, Gonda discloses a method for managing a configuration for a virtual private network and at least one of a plurality of servers, comprising:

- a) receiving at a subsystem manager a request to change to a new configuration for a virtual private network of an integrated storage and networking system; (see Gonda col. 8, lines 7-14: request for service modification)
- b) analyzing said request to determine a new configuration for said virtual private network of said integrated storage and networking system; (see Gonda col. 7, lines 51-56: configuration changes processed and implemented)
- d) sending commands to a virtual private network/LAN switch router to implement said new configuration. (see Gonda col. 12, lines 12-18: process commands to update configuration)
- c) Gonda discloses updating configuration tables and sending commands to a virtual private network router to implement said new configuration. (see Gonda col. 7, lines 51-56). Gonda does not disclose a storage management system that comprises a mapping between a logical partition and at least one of a plurality of HBAs. However, Blumenau discloses a mapping between a logical partition and at least one of a plurality of HBAs attached thereto; (see Blumenau col. 2, lines

4-12; col. 8, lines 35-41: mapping information between volumes and physical devices, HBA information)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gonda to implement a storage management system as taught by Blumenau. One of ordinary skill in the art would be motivated to employ Blumenau in order to provide centralized data management and strengthen security by removal of trust requirement in accessing storage in network communications. (see Blumenau col. 5, lines 33-38)

Regarding Claim 19, Gonda discloses a method for managing a configuration for at least one of a plurality of storage devices, comprising:

- a) receiving at a subsystem manager a request to change to a new configuration for at least one of a plurality of storage devices of an integrated storage and networking system; (see Gonda col. 8, lines 7-14: request for service modification)
- b) analyzing said request to determine a new configuration for said at least one of a plurality of storage devices of said integrated storage and networking system; (see Gonda col. 7, lines 51-56: configuration changes processed and implemented)

d) sending commands to a fibre channel switch to implement said new configuration. (see Gonda col. 12, lines 12-18: process commands to update configuration)

c) Gonda discloses updating configuration tables to reflect said new configuration and sending commands to a switch. Gonda does not disclose a mapping between a logical partition and at least one of a plurality of HBAs and a fibre channel switch. However, Blumenau discloses a mapping between a logical partition and at least one of a plurality of HBAs (see Blumenau col. 2, lines 4-12; col. 8, lines 35-41: mapping information between volumes and physical devices, HBA information) and a fibre channel switch (see Blumenau col. 7, lines 13-16; col. 7, 27-32: fibre channel communications).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gonda to implement a storage management system as taught by Blumenau. One of ordinary skill in the art would be motivated to employ Blumenau in order to provide centralized data management and strengthen security by removal of trust requirement in accessing storage in network communications. (see Blumenau col. 5, lines 33-38)

7. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gonda-Blumenau and further in view of Bradley et al. (US Patent No. 6,584,507).

Regarding Claim 12, Gonda discloses an integrated management system comprising a server table, having a server identification, an address, a physical server identifier (see Gonda col. 14, lines 51-53: service unit (server) identification), a virtual LAN identifier, a logical partition (LPAR) identification, an operating system identifier, and CPU information. Blumenau discloses a management system further comprising a host bus adaptor (HBA) identification (see Blumenau col. 2, lines 4-12; col. 8, lines 35-41: mapping information between volumes and physical devices, HBA information). Gonda and Blumenau do not disclose an application identification and operating system information. However, Bradley discloses the system of claim 8, an application identification and operating system information (see Bradley col. 3, lines 54-57: application identification; col. 16, lines 61-62: operating system information)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gonda to utilize an application server for application management as taught by Bradley. One of ordinary skill in the art would be motivated to employ Bradley in order to correctly certify the integration of applications within the network management system. (see Bradley col. 2, lines 64-67: “ ... *certifying that the connection information will correctly integrate the application program with the network management system ... certifying information that identifies the connection as certified ...* ”)

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K H S
Kyung H Shin
Patent Examiner
Art Unit 2143

KHS
Jan. 2, 2005


DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100